

1) A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3-16-09 has been entered.

2) Claim 11 is objected to because of the following informalities:

In claim 11 line 16, --,-- should be inserted after "to form an uncured tread rubber".

In claim 11 line 27, --,-- should be inserted after "a top face of the first tread rubber portion".

Appropriate correction is required.

3) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4) Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 11 line 28 (four lines from bottom), there is no antecedent basis for "the second tread rubber portion". It is suggested to insert --portion-- after "a second tread rubber" on line 23 of claim 11.

5) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6) **Claims 2, 3, 5 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koyama et al (US 2002/0007893) in view of Verbrugghe (WO 98/38050) and Japan 426 (JP 11-020426).**

Koyama et al discloses a method for producing a tire having a tread comprising providing tire material 4 on a rotating support 3; winding an uncured first portion 8a of low electrically conductive rubber on the tire material 4; winding uncured high electrically conductive rubber ribbon 10 to form an electrically conductive layer 9; and winding an uncured second portion 8b of low electrically conductive rubber. The ribbon may have a thickness of 0.2-0.7 mm and a width of 1-80 mm (0.1 cm to 8.0 cm). The ribbon 10 may be wound only once such that it is inclined (figure 3b, paragraph 46). The ribbon 10 may be wound plural times (Figure 2, 3c, 3d, 4, 5). The low electrically conductive rubber may be formed by winding a ribbon as an alternative to winding an integral shaped body (paragraph 53). The outer surface of the tire material 4 may be defined by a belt cord coating layer 6. The tread may have a cap base structure (figure 4). Koyama et al does not recite the ribbon 10 as having a top part and bottom part as set forth in claims 2 and 11.

As to claims 2 and 11, it would have been obvious to one of ordinary skill in the art to wind an uncured thin high conductive rubber sheet in Koyama et al's method of making a tire having a tread such that a "top part" of the conductive sheet extends on a "top face" of the low conductive first portion, a "middle part" of the conductive sheet is

inclined and extends between the low conductive first portion and the low conductive second portion, and a "bottom part" of the conductive sheet extends under a bottom face of the low conductive second portion since (1) Koyama teaches forming a conductive path through a tread by winding the low conductive first portion, high conductive rubber ribbon 10 and low conductive second portion such that the **high conductive rubber ribbon 10** is wound only one turn, inclined with respect to the radial direction and disposed between the low conductive first portion and low conductive second portion, (2) Verbrugge suggests forming a conductive path through an individual low conductive layer 7 of the tread by extending a **conductive rubber strip 12** such that, in addition to having an inclined middle part, the conductive strip 12 has a top part 120 extending on a top face of end portion of the low conductive layer 7 and a bottom part 122 extending under a bottom face of a bottom end portion of the low conductive layer 7 to *ensure electrical connection of the two faces* (Figure 2, abstract, machine translation), and (3) Japan 426 suggests forming a **conductive rubber layer 2** extending through a tread such that the conductive layer has a wide top part, a middle part and a wide bottom part (Figure 1 or Figure 3) to *obtain full antistatic effect*. With respect to the belt, Koyama et al teaches that 6 may be a belt cord coating layer made of high electrically conductive rubber. With respect to "displacing" (claim 12), note Koyama et al's teaching to wind ribbon onto a rotating tire material 4. In any event: It would have been obvious to one of ordinary skill in the art to "displace" the rotating tire material 4 while winding the ribbon since official notice is taken that it is well known / conventional per se in the tire art to wind an uncured rubber ribbon on a "rotating,

displacing tire raw member". With respect to "thin". Koyama teaches that the ribbon may have a thickness of 0.2 mm to 0.7 mm. The claimed invention has not been compared with Koyama et al. No unexpected results over Koyama et al have been shown.

As to claim 3, Koyama et al teaches forming the uncured tread rubber by winding low electrically conductive ribbon.

As to claim 5, see Figure 3b. Claim 5 fails to require two layers (e.g. outermost layer and innermost layer).

7) **Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koyama et al (US 2002/0007893) in view of Verbrugghe (WO 98/38050) and Japan 426 (JP 11-020426) as applied above and further in view of Japan 713 (JP 11-129713).**

As to claim 4, it would have been obvious to one of ordinary skill in the art to incline the high electrically conductive band (figure 3b) at an angle of 45-75 degrees with respect to the equatorial plane in view of Japan 713's teaching to incline an high electrically conductive rubber member extending through a low electrically conductive rubber tire tread at a relatively large angle (illustrated angle of 70 degrees in figure 4).

8) **Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koyama et al (US 2002/0007893) in view of Verbrugghe (WO 98/38050) and Japan 426 (JP 11-020426) as applied above and further in view of Calvar et al 233 (US 6,951,233) and Calvar et al 693 (US 6,834,693).**

As to claims 5 and 6, it would have been obvious to form a two layer tread in which an electrically conductive band extends through an uppermost layer and an electrically conductive band extends through a lowermost layer since (1) Koyama et al, directed to an anti-static tire, teaches that the tread may have two layers (figure 4) and (2) Calvar et al 233 and Calvar et al 693 suggest separately forming the cap and base (the two layers) in which each of these layers has an electrically conductive rubber member extending there through.

9) **Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koyama et al (US 2002/0007893) in view of Verbrugghe (WO 98/38050) and Japan 426 (JP 11-020426) as applied above and further in view of Europe 397 (EP 1201397).**

As to claim 10, it would have been obvious to one of ordinary skill in the art to use a calendar to form the conductive rubber ribbon 10 since Europe 397, also directed to strip winding a tire tread, suggests using a calendar to form a rubber tape for strip winding so that the desired thickness can be obtained.

#### Remarks

10) Applicant's arguments with respect to claims 2-6 and 10-12 have been considered but are moot in view of the new ground(s) of rejection.

With respect to applicant's summary of the interview on March 11, 2009, examiner comments: "INTERVIEW RECORD OK".

The prior art rejections set forth paragraphs 5-10 of the last office action dated 11-14-08 have been withdrawn in view of the amendment filed 3-16-09. However, note the new ground of rejection of claims 2-6 and 10-12.

The certified English translation filed 7-28-08 of applicant's priority document having a filing date of 7-16-03 has been received. Japan 614 (JP 2003-326614), which was published 11-19-03, is therefore not available as prior art. However, Japan 713 (JP 11-129713), which was published 5-18-99, remains available as prior art under 102(a) and 102(b).

Hanson (US 2,339,546) is of interest for Figure 1, Figure 3 and Figure 4.

- 11) No claim is allowed.
- 12) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Steven D. Maki/  
Primary Examiner, Art Unit 1791

Steven D. Maki  
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